qPCRBIO **Probe Blue Mix**

- Easy sample visualisation
- High efficiency in multiplex reactions
- Market-leading sensitivity

qPCRBIO Probe Blue Mix is a universal probe kit that includes a non-reactive blue dye for easy sample visualisation and enhanced pipetting accuracy. Whether your application is for a singleplex or multiplex expression study, or a diagnostic assay, qPCRBIO Probe Blue Mix is the robust choice for all your probe-based real-time PCR needs.

Features

- Non-reactive blue dye for easy visualisation during pipetting
- High efficiency in multiplex reactions
- Rapid extension rate for early Ct values
- Market-leading sensitivity - increased limit of detection
- Compatible with all qPCR platforms - standard and fast cycling conditions
- Efficient amplification from GC-rich and AT-rich templates

Applications

- Absolute quantification
- Relative gene expression analysis
- TaqMan®, Scorpions® and molecular beacon probes
- Low copy number target genes
- Multiplex or singleplex
- Diagnostic qPCR
- Genotyping & allelic discrimination

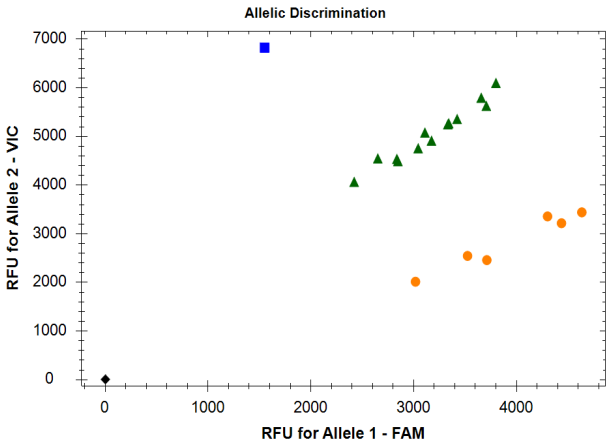

Figure 1. Allelic discrimination for genotyping

TaqMan probes designed for SNP rs1726866 in codon 262 of the Taste 2 Receptor Member 38 (TAS2R38) gene were used in duplex reaction (VIC probe for T allele, FAM probe for C allele) to screen for this polymorphism in a population of 20 subjects, starting from extracted genomic DNA. Based on fluorescence signal, subjects could be classified as non taster (homozygous for T allele, blue squares), super taster (homozygous for C allele, yellow circles), or intermediate taster (heterozygous, green triangles) for phenylthiocarbamide (bitter taste). Black diamonds indicate no template control. 2µL genomic DNA, extracted from epithelial cells (buccal swabs) using PCRBIO Rapid Extract Lysis Buffer, were added to the reaction mix. Cycling conditions were 95˚C 2min, 50 cycles of 95˚C 10sec, 60˚C 30sec on a Biorad CFX instrument.

PCRBIOSYSTEMS
simplifying research

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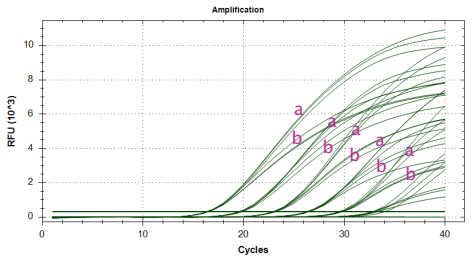
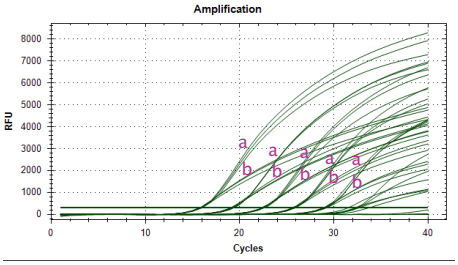
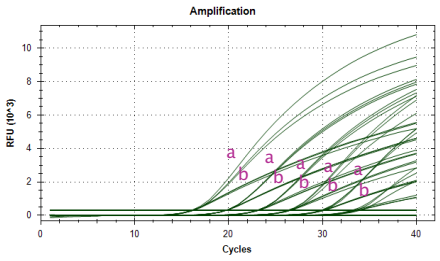
Experiment 1-qPCRBIO Probe Mix
a=Singleplex b=Quadplex



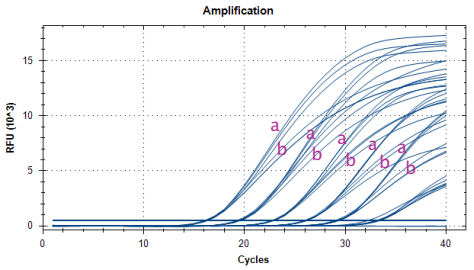
Experiment 2-Invitrogen EXPRESS
a=Singleplex b=Quadplex



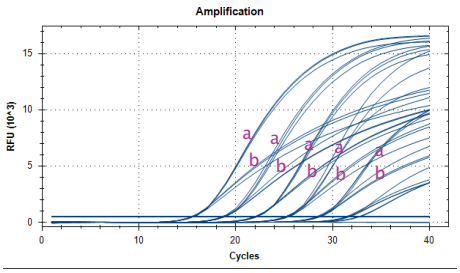
Experiment 3-Biorad Ssofast Probe Mix
a=Singleplex b=Quadplex



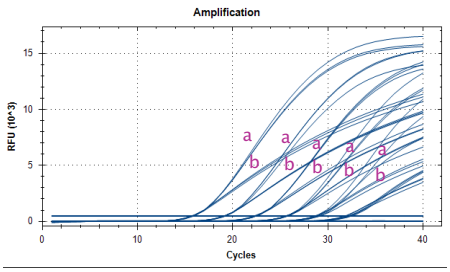
Experiment 4-qPCRBIO Probe Mix
a=Singleplex b=Quadplex



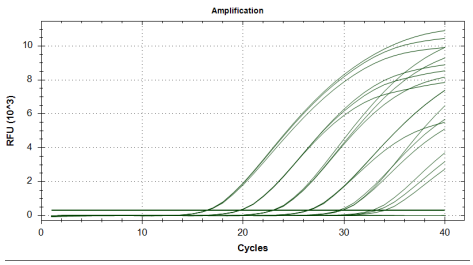
Experiment 5-Invitrogen EXPRESS
a=Singleplex b=Quadplex



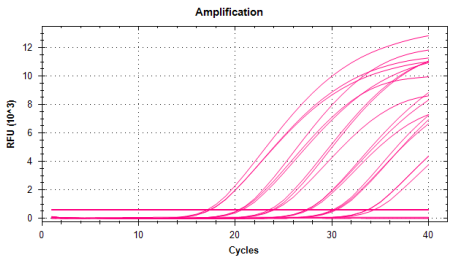
Experiment 6-Biorad Ssofast Probe Mix
a=Singleplex b=Quadplex



Experiment 7-qPCRBIO Probe Mix
Singleplex sensitivity test ACVR2B



Experiment 8-qPCRBIO Probe Mix
Singleplex sensitivity test LIMK1



Experiment 9-qPCRBIO Probe Mix
Singleplex sensitivity test ACVR1B

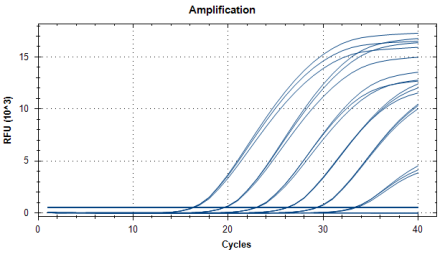


Figure 2. qPCRBIO Probe Mix competitor comparison in singleplex and multiplex assays

Experiments 1, 2 and 3 show TaqMan probe amplification traces of human gene ACVR2B in singleplex and in quadplex (ACVR2B, LIMK1, ACVR1B and CDK7) from a cDNA dilution series. a) traces indicate singleplex reactions, b) traces indicate quadplex reactions. qPCRBIO Probe Blue Mix was tested against the latest competitor mixes from Invitrogen (experiment 2) and Biorad (experiment 3). qPCRBIO Probe Blue Mix shows the least PCR inhibition when in multiplex compared to Invitrogen and Biorad mixes. This is evident in more delayed amplification traces in quadplex (b) compared to singleplex (a). Experiments 4, 5 and 6 show TaqMan probe amplification traces of human gene LIMK1 in singleplex and quadplex (ACVR2B, LIMK1, ACVR1B and CDK7). As with experiments 1, 2 and 3, LIMK1 amplification is less inhibited in multiplex in the PCR Biosystems probe mix than the competitor mixes tested. Cycling conditions were 95˚C 2min, 40 cycles of 95˚C 10sec, 60˚C 15sec on Biorad CFX instrument.

Experiments 7, 8 and 9 show TaqMan probe amplification traces from plasmid dilution series of $1x10^6$ copies to 10 copies of DNA. For each gene qPCRBIO Probe Blue Mix amplified with 100% efficiency and detected 10 copies of DNA.

Catalogue Number	Product Name	Pack Size	Presentation
PB20.25-01	qPCRBIO Probe Blue Mix Lo-ROX	100 x 20µL rxns	1 x 1mL
PB20.25-05		500 x 20µL rxns	5 x 1mL
PB20.25-20		2000 x 20µL rxns	20 x 1mL
PB20.26-01	qPCRBIO Probe Blue Mix Hi-ROX	100 x 20µL rxns	1 x 1mL
PB20.26-05		500 x 20µL rxns	5 x 1mL
PB20.26-20		2000 x 20µL rxns	20 x 1mL
PB20.27-01	qPCRBIO Probe Blue Mix Separate-ROX	100 x 20µL rxns	[1 x 1mL] & [1 x 200µL ROX]
PB20.27-05		500 x 20µL rxns	[5 x 1mL] & [1 x 200µL ROX]
PB20.27-20		2000 x 20µL rxns	

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